REMARKS

Applicant has studied the Final Office Action dated May 25, 2006 and has amended claims 1,2, 4, 12, 13, 15, 17, 20 and 28. No new matter has been added. Claims 1-29 are pending. Claims 1 and 17 are independent claims. It is submitted that the application, as amended, is in condition for allowance. Reconsideration and reexamination are respectfully requested.

Amendments to the Claims

Claims 2,4, 12, 13, 15, 20 and 28 have been amended to correct typographical or grammatical errors or to more clearly define the invention. It is respectfully submitted that the amendments have support in the application as originally filed and are not related to patentability.

§ 102 Rejections

Claims 1-29 were rejected under 35 U.S.C. § 102(b) as being anticipated by Honjo (U.S. Patent No. 5,404,581). This rejection is respectfully traversed.

It is respectfully noted that a proper rejection for anticipation under § 102 requires complete identity of invention. The claimed invention, including each element thereof as recited in the claims, must be disclosed or embodied, either expressly or inherently, in a single reference. Scripps Clinic & Research Found. v. Genentech Inc., 927 F.2d 1565, 1576, 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991); Standard Havens Prods., Inc. v. Gencor Indus., Inc., 953 F.2d 1360, 1369, 21 U.S.P.Q.2d 1321, 1328 has(Fed. Cir. 1991).

It is respectfully noted that independent claims 1 and 17 have been amended with this paper to recite that the high resistance substrate that is essentially non-conductive. It is respectfully submitted that Honjo fails to disclose this limitation.

It is respectfully noted that the Examiner asserts, at paragraph 4 on page 2 of the Office Action, that Honjo discloses "in figures 2-4" that "the antenna 31, the low noise amplifier 34, and the phase shifter 37 are formed on one high resistance substrate 1." It

is further respectfully noted that the Examiner asserts, at paragraph 5 on page 4 of the Office Action, that "Honjo does teach a high resistance substrate 1" in that "Figure 2 shows the substrate 1 being a semi-insulation GaAs substrate" and that Fujiwara et al. discloses that a semi-insulation GaAs substrate should be a high–resistance substrate. However, it is respectfully submitted that even if Fujiwara supports the Examiner's assertion, a "high resistance substrate" is not sufficient to disclose a substrate that is essentially non-conductive.

It is respectfully noted that the present invention relates to a smart antenna system and a method for fabricating an inductor that defines a phase shifter having better quality factor than a quality factor of an inductor fabricated by MMIC on a semiconductor substrate. It is respectfully submitted that forming a phase shifter, that has been fabricated on a semiconductor substrate, on a high resistance substrate, enhances a quality of a smart antenna to implement change of a directional angle by using at least one phase shifter.

It is further respectfully noted that the present invention discloses a fabrication method and a structure of an inductor that has a better quality factor used for a phase shifter that defines efficiency of a smart antenna system. It is respectfully submitted that the method of the present invention facilitates an inductor structure made of a high-resistance substrate followed by a regular process to fabricate a high resistance.

It is respectfully submitted that the semi-insulation substrate used in Honjo **cannot** be essentially non-conductive since the semi-insulation substrate needs semi-conductivity. It is further respectfully submitted that it is clearly understood by one of ordinary skill in this art that the word "high resistance," as used in the claims of the present invention, means essentially non-conductive.

It is respectfully noted that Fujiwara, which the Examiner asserts as disclosing that a semi-insulation substrate is high-resistance, only discloses GaAs substrates having a LED array thereon. It is further respectfully noted that Fujiwara teaches the use of another dielectric layer between the semi-insulation substrate and leads or interconnection lines for isolation, as evidenced by "dielectric film 11" in FIG. 2.

It is respectfully submitted that, even if the LED array of Fujiwara has a GaAs semi-insulation substrate as a high-resistance substrate, the semi-insulation substrate is used with its transparency and conductivity. It is further respectfully submitted that the purpose of GaAs substrates for LED structure is well known in the optical device art and that GaAs substrates may be used as an n-contact or a p-contact of the LED, thereby requiring the GaAs substrate to have an ability to drive a current and precluding a substrate that is essentially non-conductive.

It is respectfully noted that the semi-insulation substrate should not be used for a perfect isolation in Fujiwara. It is respectfully submitted that the present invention facilitates a method for fabricating a high quality factor inductor on a high resistance substrate that shows a perfect isolation characteristic. It is further respectfully submitted that one of ordinary skill in the related art would interpret "high resistance," as used in the claims of the present invention as essentially non-conductive and that quality of an inductor on a nonconductive substrate is better than quality of an inductor on a semi-conductive substrate.

It is respectfully noted that the present invention facilitates a smart antenna system that relies on the quality of a phase shifter and the quality of a phase shifter relies on the inductor. However, it is respectfully submitted that Honjo does not teach a structure or fabrication method for a high quality factor inductor.

Therefore, it is respectfully asserted that independent claims 1 and 17 are allowable over the cited reference. It is further respectfully asserted that claims 2-16, which depend from claim 1, and claims 18-29, which depend from claim 17, also are allowable over the cited reference.

CONCLUSION

In light of the above remarks, Applicant submits that claims 1-29 of the present application are in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein; and no amendment made was for the purpose of narrowing the scope of any claim, unless Applicant has argued herein that such amendment was made to distinguish over a particular reference or combination of references.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 623-2221 to discuss the steps necessary for placing the application in condition for allowance.

Respectfully submitted,

Lee, Hong, Degerman, Kang & Schmadeka

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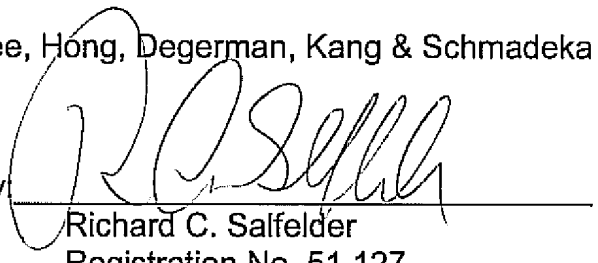
By 

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